

**REMARKS/ARGUMENTS**

In the Office Action mailed May 21, 2008, claims 1, 10, 11, 21 and 24 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,011,950 to Young. Claims 2-8, 12-18 and 22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Young in view of U.S. Patent No. 6,771,710 to Myers. Claims 9, 19 and 23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Young. These rejections are respectfully traversed.

Young fails to anticipate claims 1, 10, 11, 20, 21 and 24 under 35 U.S.C. 102(b), as it fails to disclose each element of the claimed invention. Consider claim 1, which includes an upconverter in signal communication with the modulator, where the upconverter produces the second digital signal from the new modulated digital stream of data. The Examiner admits that Young fails to disclose an upconverter, and relies on inherency to argue that it is inherent that a QAM modulator includes an upconverter. "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted). The term "upconverter" is not used in Young, and merely citing to another reference that allegedly discloses an upconverter fails to establish that an upconverter is necessarily present in the device of Young. In order to anticipate a claim under 35 U.S.C. 102(b), the cited reference must disclose each element of the claims, as Young fails to do so, Applicants respectfully request that the rejection of claim 1 be withdrawn.

Likewise, in regards to claims 10, 20 and 24, Young fails to disclose that the second modulation and encoding scheme is QPSK. In fact, the Examiner admits that Young instead discloses QAM modulation at page 2 of the office action.

Claim 11 includes elements that are drafted in means plus function format to invoke the provisions of 35 U.S.C. 112(6), and the Examiner has failed to identify what structure in Young allegedly corresponds to the structure disclosed in the specification. By way of example and not by limitation, see, e.g., Figs. 3-5 and 7 of the pending application. A cursory review of Young shows that it utterly fails to disclose any structure that is identical to or an equivalent of the structures corresponding to the claimed means plus function elements of claim 11.

In regards to the rejection of claims 2-8, 12-18 and 22 under 35 U.S.C. 103(a) as being unpatentable over Young in view of Myers, Young in view of Myers fails to provide a prima facie basis for the rejection of claims 2-8, 12-18 and 22 because they fail to disclose each element of the claimed invention. Consider claim 2, which includes the transcoder of claim 1, wherein the upconverter includes: an upsampler that receives the new modulated digital stream of data from the modulator and produces an upsampled signal; a complex mixer in signal communication with the upsampler, where the complex mixer is capable of producing an intermediate frequency ("IF") digital signal by upconverting the upsampled signal with an IF carrier signal; and a combiner in signal communication with the complex mixer, where the combiner is capable of producing the second digital signal having sampling replicas from the IF digital signal. The Examiner acknowledges that Young fails to disclose these claim elements, but asserts that they are disclosed by Myers, citing to mixers 34, 36, 40 and 42, but Myers fails to disclose a complex mixer in signal communication with the upsampler, where the complex mixer is capable of producing an intermediate frequency ("IF") digital signal by upconverting the upsampled signal with an IF carrier signal. Mixers 40 and 42 of Myers receive signals from a 21.4 MHz generator and a 34.8 kHz generator, and do not receive any upsampled signals whatsoever. In fact, the term "complex mixer" is not even used in Myers. Myers also fails to disclose a combiner in signal communication with the complex mixer, where the combiner is capable of producing the second digital signal having sampling replicas from the IF digital signal. The terms "replica," "replicas," and "sampling replicas" are not even used in Myers.

Likewise, in regards to claim 3, Myers fails to disclose that the second digital signal may include multiple in-phase and quadrature-phase modulated image replicas. As noted above, image replicas are simply not disclosed by Myers, and the Examiner makes no attempt to try and identify where such limitations are disclosed in Myers.

In regards to claim 4, Myers fails to disclose a clock signal is input into both the upsampler and a digital-to-analog converter ("DAC") in signal communication with the combiner. The only DAC disclosed in Myers, DAC 39, receives only a single signal input and no clock signal input. The Examiner makes no attempt to try and identify where such limitations are disclosed in Myers.

In regards to claim 5, Myers fails to disclose a complex mixer, much less a complex mixer that is connected to a numerically controlled oscillator that produces the IF carrier signal.

Indeed, the terms “numerical,” “numerically” and “numerically controlled oscillator” are not even used in Myers. The Examiner makes no attempt to try and identify where such limitations are disclosed in Myers.

In regards to claim 6, Myers fails to disclose that the IF carrier signal is at a lower frequency than the clock signal. In fact, the term “clock” is not even used in Myers, and it is not clear that Myers even discloses a clock signal. The Examiner makes no attempt to try and identify where such limitations are disclosed in Myers.

In regards to claim 7, Myers fails to disclose a numerically controlled oscillator, as noted, much less that a numerically controlled oscillator is an internal component of the transcoder. The Examiner makes no attempt to try and identify where such limitations are disclosed in Myers.

In regards to claim 8, Myers fails to disclose a numerically controlled oscillator, as noted, much less that a numerically controlled oscillator is an external component of the transcoder. The Examiner makes no attempt to try and identify where such limitations are disclosed in Myers.

In regards to claims 12 through 18, these claims include means plus function limitations which have not even been properly addressed by the Examiner, and it is further noted that neither Young or Myers discloses the corresponding structure or an equivalent thereof of the relevant means plus function limitations.

In regards to claim 22, Myers fails to disclose upsampling the new modulated digital signal; mixing the upsampled new modulated digital signal with an intermediate frequency (“IF”) carrier signal to produce an IF digital signal; and sampling the IF digital signal through a mixer to produce the second digital signal. There is nothing in Myers that remotely suggests that a second digital data signal is generated, and the output of 32 of Myers is directly converted to an analog signal. The Examiner makes no attempt to try and identify where such limitations are disclosed in Myers.

In regards to the rejection of claims 9, 19 and 23 under 35 U.S.C. 103(a) as being unpatentable over Young, the Examiner admits that Young fails to disclose each element of the claimed invention, and as such, Young fails to provide a prima facie basis for the rejection of these claims. As shown, Young explicitly fails to disclose the limitations of claims 10, 20 and 24, and also fails to support an argument that it would be obvious to modify the system of

Young, as Young states at col. 3, lines 61-65 that “it is an object of the present invention to provide an improved transcoder which can take a satellite signal for transmission via satellite in a form for either 256-QAM or 64-QAM channels, and convert it into a cable signal compatible with cable equipment of either capacity,” and it is not clear from Young that 8-PSK Turbo Coding as a satellite modulator is prior art.

Premises considered, withdrawal of all claim rejections and allowance of all pending claims is respectfully requested.

**CONCLUSION**

In view of the foregoing remarks and for various other reasons readily apparent, Applicants submit that all of the claims now present are allowable, and withdrawal of the rejection and a Notice of Allowance are courteously solicited.

If any impediment to the allowance of the claims remains after consideration of this amendment, a telephone interview with the Examiner is hereby requested by the undersigned at (214) 953-5990 so that such issues may be resolved as expeditiously as possible.

No fees are believed due with this response. The Commissioner is hereby authorized to charge any fee or credit any refund to Deposit Account No. 50-0835 in the name of Conexant Systems, Inc.

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Respectfully submitted,

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